1   METHOD FOR OPTIMIZING A SOLUTION SET

2   ABSTRACT OF THE DISCLOSURE

3   An embodiment of a method for optimizing a solution set has steps of
4   generating a first solution set, selecting a second solution set from the first,
5   fitting the second solution set with a probabilistic model, using the model to
6   generate a new set of solutions, replacing at least a portion of the first set of
7   solutions with the third, and evaluating the third set to determine if completion
8   criteria have been met.   A probabilistic model may allow for merging a
9   plurality of variables into a single variable and for modeling relationships
10 between the merged variables over multiple hierarchical levels.   Invention
11 method embodiments may also comprise steps of niching to preserve diversity
12 among the solution set.